

**What is Claimed is:**

1. A planar package structure for high power light emitting diode, comprising:  
5 a substrate;  
a package material;  
a light emitting diode chip disposed on the substrate, having a main light emitting surface served as a light source; and  
a planar optical modulation unit disposed on the package material, so that the  
10 planar optical modulation unit is above the main light emitting surface, and utilized for modulating the optical phase of the light source.
2. The planar package structure for high power light emitting diode of claim 1, wherein the package material is made of transparent resin.
3. The planar package structure for high power light emitting diode of  
15 claim 1, wherein the package material is made of polymer material.
4. The planar package structure for high power light emitting diode of claim 1, wherein the planar optical modulation unit performs a refractive optical phase modulation.
5. The planar package structure for high power light emitting diode of  
20 claim 1, wherein the planar optical modulation unit performs a diffractive optical phase modulation.
6. The planar package structure for high power light emitting diode of claim 1, wherein the planar optical modulation unit is a Fresnel lens structure.
7. The planar package structure for high power light emitting diode of  
25 claim 1, wherein the planar optical modulation unit is a lens structure with a gradient refractive index.
8. A planar package structure for high power light emitting diode, comprising:  
a substrate;  
30 a package material;

a plurality of light emitting diode chips disposed on the substrate, each light emitting diode chip having a main light emitting surface served as a light source; and

a plurality of planar optical modulation units disposed on the package material, so that each of the planar optical modulation units is above each of the main light emitting surface respectively, and utilized for modulating the optical phase of each of the light sources.

9. The planar package structure for high power light emitting diode of claim 8, wherein the package material is made of transparent resin.

10. The planar package structure for high power light emitting diode of claim 8, wherein the package material is made of polymer material.

11. The planar package structure for high power light emitting diode of claim 8, wherein each of the planar optical modulation units performs a refractive optical phase modulation.

12. The planar package structure for high power light emitting diode of claim 8, wherein each of the planar optical modulation units performs a diffractive optical phase modulation.

13. The planar package structure for high power light emitting diode of claim 8, wherein each of the planar optical modulation units is a Fresnel lens structure.

14. The planar package structure for high power light emitting diode of claim 8, wherein each of the planar optical modulation units is a lens structure with a gradient refractive index.

15. A planar package structure for high power light emitting diode, comprising:

a substrate;  
a light emitting diode chip disposed on the substrate, having a main light emitting surface served as a light source; and  
a package material disposed on the main light emitting surface, and doped with a plurality of scattering particles for scattering light beams from the light source.

16. The planar package structure for high power light emitting diode of claim 15, wherein the package material is made of transparent resin.

The planar package structure for high power light emitting diode of claim 15, wherein the package material is made of polymer material.